

Polluted Runoff Control Program, Clean Water Branch, Hawaii State Department of Health:

FISCAL YEAR 1999 CLEAN WATER ACT

SECTION 319(h) END-OF-YEAR REPORT



March 31, 2000

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FY - '99 End-of-Year Report Narrative

The Department of Health's (DOH) Polluted Runoff Control (PRC) Program succeeded in fulfilling many of its goals and objectives planned for FY-99. The program successfully met or continued work on such key tasks as: the Clean Water Act (CWA) Section 319(h) grant administration and project oversight; development of a state administrative position for federal Coastal Zone Act Reauthorization Amendments (CZARA); developed a Memorandum of Agreement (MOA) to better address CZARA coordination efforts between PRC and the Department of Business, Economic Development and Tourism's (DBEDT) Coastal Zone Management (CZM) Program; focused resources toward polluted runoff issues in a priority watershed like the Ala Wai Canal Watershed; integrated polluted runoff control projects as a funding option for CWA State Revolving Funds (SRF); continued education and outreach projects; and initiated Hawaii's Unified Watershed Assessment program with funding allocations based on watershed priorities established by an interagency panel. The following text summarizes the past year's activities. A specific quarter-by-quarter description of each workplan task is outlined in Appendix A.

Human Resources

Maintaining core PRC program staff greatly contributed to '99 being a productive year. The IPA on loan from the US Environmental Protection Agency (EPA) assisted in keeping the program functioning, providing valuable training to new personnel and continuous project oversight. The IPA, however, returned to EPA this past September. The first of two Environmental Health Specialists (EHS) spent the year learning and executing grants management and contract writing. This first EHS, though, left the PRC Program on June 9, 1999. The EHS position was again filled in July, 1999 by a graduate holding a Masters in Public Health. This person continues to write contracts for 319(h) projects, in addition to taking an active role in Unified Watershed Assessment grant management and participating in public education/outreach events. The current EHS has temporary status, but is planning on applying for the position on a permanent basis once the State civil service list opens.

The Planner III spent most of the year monitoring Section 319(h) projects and amending the program's workplans and associated federal grants. The Planner III position was vacated in December, 1999 and was filled again in January by a temporary worker. The Public Participation Coordinator (PPC) recently received the state civil service list for this position and is currently conducting interviews to fulfill this position with a permanent employee.

PRC legislative initiatives were successful in converting the Planner IV position from temporary to permanent status and converting the temporary EHS III position from unbudgeted to budgeted, as well as creating a temporary Grants Management Specialist (GMS) IV position. The State 1999 Legislature approved the staffing request, and the PRC Program will undoubtedly benefit from these positive changes in staff structure. Additionally, the Clean Water Branch Chief provided testimony on numerous water quality bills, the state budget request was finalized and included in the Administration package to the state Legislature, and key legislative representatives were lobbied to support budget and staff requests.

The PRC Program invested more this year than others years in building staff capacity through training or attendance at conferences. The IPA was able to obtain Pollution Prevention (P2) training at a Western Region P2 conference. The cost was absorbed by the conference coordinators. The PPC attended a national NPS conference sponsored by ASIWPCA and the EPA. Attendance at this conference proved to be very beneficial in bringing back to Hawaii approaches that could be used in upgrading our state Management Plan and integrating CZARA. The PPC also attended a Western Region State Revolving Fund (SRF) workshop. The PPC attended along with the DOH-Wastewater Branch's SRF coordinator. This effort has fostered better integration of NPS issues into prioritizing the use of SRF funds in Hawaii.

PRC also coordinated with the Environmental Planning Office to develop standard NPS language to be used for all environmental assessment and impact statement reviews. PRC staff reviewed 22 planning documents requiring NPS comments, based on the HCNPCP, and continue to review such documents when necessary. Lastly, all PRC staff attended various computer training courses to upgrade their skills. For more details on these and related accomplishments, see Appendix A, Part E.

Section 319(h) Nonpoint Source Grant Management

Notification of the FY-'99 grant allocation for CWA Section 319(h) projects was received from the EPA on December 22, 1998. This grant was then amended on July 2, 1999 to provide incremental funding for Unified Watershed Assessment project. The End-of-Year report for FY '98 was submitted to, and accepted by, the EPA in January, 1999. The PRC FY 2000 final Workplan was submitted to the EPA during the fourth quarter of FY '99, and was re-submitted following EPA revised grant allocations. PRC staff continue to work with the Environmental Resources Office to secure matching funds for grants not meeting minimum required match.

A total of 17 grant extensions were necessary to allow contractors to complete projects, or to modify contract agreements. PRC program staff continue to meet with Clean Water Branch staff for on-going coordination activities. Grantees for FY '98 Section 319(h) funds were selected the during the first quarter of FY '99 and final project proposals were submitted to the PRC Program during the third quarter of FY '99. Additionally, PRC staff worked on an on-going basis to implement the existing Memorandum of Agreement (MOU) between several state and federal agencies and to re-evaluate the MOU for overall effectiveness, benefits, and value. For greater detail on these and related administrative and programmatic tasks, please refer to Appendix A, Task A.

For a complete list of CWA Section 319(h) projects funded from fiscal years 1990 - 1999 please refer to Appendix B, which also includes information concerning HUC Codes, watershed/stream locations of projects, project sponsors (grantees), and non-federal matches for federal grants.

CWA Section 319(h) NPS Implementation Projects

There are 16 current Section 319(h) projects in various stages of implementation. Following are brief outlines of these projects, including the percentage of project completion and objectives so far achieved.

1). Project Title: Watershed Stabilization on the Hilo Coast

Grantee: Hamakua Soil and Water Conservation District

Grant Award: Federal funds, \$120,000, Non-federal funds, \$344,116

Project Manager: Thomas Crabb

Percent of project complete: 70%; Percent of funds remaining: 40%

<u>Purpose</u>. To reduce erosion in sugarcane fields after final harvesting, reduce sedimentation from sugarcane fields that would otherwise enter streams and coastal water bodies along Hilo coast, and distribute information about the project to interested parties to encourage future projects addressing polluted runoff in the Hilo area. <u>Status</u>. 750 acres mowed during period, made good progress on mowing, utilized bulldozer to push down tall sugar cane stalks, and field operations currently being pursued to flatten sugarcane fields after harvesting with a variety of equipment.

2). Project Title: Manawainui Watershed Restoration Project

Grantee: Molokai-Lanai Soil and Water Conservation District Grant Award: Federal funds, \$60,000; Non-federal funds, \$40,000

Project Manager: Paul Elia

Percent of project complete: 90%; Percent of funds remaining: 15%

<u>Purpose</u>. To decrease sediment loads entering coastal water bodies by implementing land treatment measures comprised of effectively designed BMPs. This effort will reduce negative impacts to nearshore marine ecosystems. <u>Status</u>. Installed temporary rain gauges, installed three weather monitoring stations, and analyzed water samples taken at stream outlet. Planted 3000 stargrass cuttings, took inventory of plants, assessed coastal areas designated for revegetation, scheduled planting of trees, grasses, and shrubs, completed Hawaiian curriculum on soil and water conservation, and installed three weather monitoring stations.

3). Project Title: <u>Farm*A*Syst/Home*A*Syst for Hawaii: Development of a Farm and Home Pollution Assessment Program</u>

Grantee: University of Hawaii, College of Tropical Agriculture and Human Resources

Grant Award: Federal funds, \$84,337; Non-federal funds, \$65,600

Project Manager: Carl Evensen

Percent of project complete: 65%; Percent of funds remaining: 35%

<u>Purpose</u>. To pilot test a localized version of the national Farm*A*Syst/Home*A*Syst educational and pollution assessment materials. The program provides fact sheets and self-assessment worksheets to farmers and homeowners to allow them to assess their activities in terms of pollution risks. <u>Status</u>. Completed drafts of worksheets addressing management of activities relative to: farm, land, nutrient, pest, water, and livestock practices that contribute to polluted runoff, also developed materials addressing disposal of farm chemicals, and completed revisions of school lessons for teachers. Completed drafts of the entire set of ten Farm*A*Syst/Home*A*Syst materials including two new extension sheets covering pasture management and forest and riparian areas management, completed revisions to materials and devised new lesson focusing on watersheds, and made arrangements for pilot testing activities.

4). Project Title: <u>Waiakea Stream Best Management Practices</u> Grantee: County of Hawaii, Department of Public Works Grant Award: Federal funds, \$90,000; Non-federal funds, \$60,000

Project Manager: Jiro A. Sumada

Percent of project complete: 10%; Percent of funds remaining: 95%

<u>Purpose</u>. BMPs will be implemented to reduce NPS pollution from sediment transport and a wide range of land uses that endanger some of Hilo's most important natural resources. The bank of Waiakea Stream severely erodes during heavy rains, resulting in sedimentation of Waiakea Fish Pond and Hilo Bay. <u>Status</u>. Plans for structural BMPs are complete, drafting plans are 50% complete, and permits from the Army and State Department of Health are being pursued.

5). Project Title: Storm Drain Stenciling

Grantee: Youth for Environmental Services (YES)

Grant Award: Federal funds, \$18,182; Non-federal funds, \$13,522

Project Manager: Sean Casey

Percent of project complete: 50%; Percent of funds remaining: 65%

<u>Purpose</u>. YES will provide coordination and supervision of neighbor island storm drain stenciling projects and stream cleanups, organize school visits to discuss water quality and pollution prevention, and assist in recruitment of volunteers for PRC public outreach projects. <u>Status</u>. Volunteers stenciled many storm drains, numerous school presentations carried out, six stream clean-ups completed. Students also voiced much enthusiasm for project activities.

6). Project Title: Pelekane Bay Watershed, Phase II

Grantee: Mauna Kea Soil and Water Conservation District

Grant Award: Federal funds, \$115,100; Non-federal funds, \$81,814

Project Coordinator: Leslie J. Whited

Percent of project complete: 35%; Percent of funds remaining: 95%

<u>Purpose</u>. To incorporate BMPs in order to curtail erosion in upland areas which adversely affects Pelekane Bay. These BMPs include rotating cattle grazing to enable regrowth of vegetation, designate certain vulnerable areas as off-limits to the public, conduct educational projects, conduct green-waste demos, and improve the water system through the replacement of old lines at the top of the watershed. The water will then be transported to areas used for rotational grazing. <u>Status</u>. Comprehensive resource management plan completed and distributed, conducted two-day public outreach events with various high schools to learn about Pelekane Bay watershed, planning process for fencing continued, completed excavation of reservoir, held State Conservation Awareness Contest (CAC), coordinated sediment monitoring (scheduled to begin in Spring), organized green-waste planning meetings, and pursued partnerships with schools for educational presentations.

7). Project Title: Waiahewahewa Restoration Area

Grantee: Molokai-Lanai Soil and Water Conservation District Grant Award: Federal funds, \$69,250; Non-federal funds, \$33,412

Project Manager: Debbie Kelly

Percent of project complete: 20%; Percent of funds remaining: 42%

<u>Purpose</u>. To comprehensively address excessive soil erosion taking place on Molokai's south shore. A detailed resource management program incorporates stabilizing rocky and sloping land areas, through the use of proven conventional critical area treatment measures and innovative, cost-effective BMPs. Specific measures include use of: live fascine plantings, rock and brush check dams in low-flow mini watersheds, filter strip/hillside ditch combination practices, use of mulch on new plantings, and exclusion of livestock on treated areas.

8). Project Title: Kalihi Community Resource Improvement Stream Project

Grantee: Hawaii's Thousand Friends

Grant Award: Federal funds, \$75,000; Non-federal funds, \$68,436

Project Manager: Malie Bay

Percent of project complete: 75%; Percent of funds remaining: 17%

<u>Purpose</u>. This project seeks to reconnect the Kalihi Valley community to Kalihi Stream, educating the public concerning watershed stewardship, management of Kalihi stream, and bringing about greater awareness of pollution prevention measures. <u>Status</u>. Conducted several stream clean-up's and storm drain stenciling events, mapping projects were completed from the stream analysis and survey and presented at a community fair, disseminated project information and findings to the community, conducted environmental education classes, completed translation of stream help guide in three languages, produced four community newsletters, and participated in several community celebration events.

9). Project Title: <u>Hawaii Coastal Nonpoint Pollution Control Program Implementation Plan</u>
Development and State Management Plan

Grantee: State Department of Business, Economic Development, and Tourism, Coastal Zone Management Program

Grant Award: Federal funds, \$147,000; Non-federal funds, \$ Not Applicable

Project Manager: Doug Tom

Percent of project complete: 80%; Percent of funds remaining: 17%

<u>Purpose</u>. An Memorandum of Agreement was prepared to facilitate coordination in the development of Hawaii's Coastal Nonpoint Pollution Control Program and to revise the existing State Management Plan for CWA Section 319(h). <u>Status</u>. Reviewed comments on the strategy to integrate technical assistance from state and federal agencies and stakeholder groups, collected information on urban, marinas and recreational boating, and wetlands management measures implementation, reviewed and evaluated 319(h) grant applications, and provided comments on draft Wetlands Policy.

10). Project Title: <u>Livestock Waste Management Technology and Pollution Prevention</u> Education Program

Grantee: Hawaii Association of Conservation Districts

Grant Award: Federal funds, \$70,000; Non-federal funds, \$70,000

Project Manager: Michael Tulang

Percent of project complete: 20%; Percent of funds remaining: 85%

<u>Purpose</u>. To address polluted runoff caused by animal production facilities by devising livestock waste management draft guidelines, initiating technical transfer of pollution prevention

measures, conducting pollution prevention project workshops, and producing outreach/educational materials for distribution to ranchers and farmers. <u>Status</u>. Preliminary field assessment/survey of livestock farms completed, draft of *Animal Residual Management Planning Manual* completed, preliminary field survey of livestock farms completed, livestock farms inventory done, and draft *Guidelines for Livestock Waste Management Plan* completed and submitted to PRC.

11). Project Title: Hawaii Water Reclamation Public Education Outreach Program

Grantee: Hawaii Water Environment Association

Grant Award: Federal funds, \$20,000; Non-federal funds, \$17,300

Project Manager: Steve Parabicoli

Percent of project complete: 70%; Percent of funds remaining: 15%

<u>Purpose</u>. To produce a video and pamphlet for water reclamation/recycling educational purposes, and form a "speakers bureau" for educational presentations. Project goals are to foster a greater understanding of the importance of water conservation and water recycling in the state. <u>Status</u>. Completed rough draft video on water reclamation in Hawaii, initiated work on pamphlet to accompany video presentation, duplicated 100 copies of video and 2400 copes of the pamphlet and distributed to governmental agencies, presented video to various intermediate schools and made the video available to local community access television stations statewide, received approval to present the project at the national Water Reuse Conference in February 2000. Video and pamphlet completed and submitted to PRC, and conducted presentations to schools, classes, and seminars. Video has been well received by the community.

12). Project Title: From Land to the Sea-A School and Community Education Initiative

Grantee: Hawaii Nature Center (HNC)

Grant Award: Federal funds, \$120,000; Non-federal funds, \$120,000

Project Manager: Diana King

Percent of project complete: 25%; Percent of funds remaining: 65%

<u>Purpose</u>. To offer residents in communities throughout the Ala Wai watershed an opportunity to explore aspects of stream and watershed ecosystems in order to foster a greater awareness of watershed issues and stewardship, to revise changes to 4th grade field education program, develop 5th grade coastal environment BMPs program, and devise a series of public service announcements to encourage public employment of BMPs to keep watersheds clean. <u>Status</u>. Contractor began research into BMPs for Ala Wai watershed and related CIP projects, began revisions to 4th grade program to better include sedimentation and erosion, analyzed methods to strengthen existing programs to convey BMPs for watersheds, began research on improvements for *Change in Nature* program, and began developing plan for demo plantings at the field site and researched various native and non-native groundcover plants.

13). Project Title: <u>Demonstration and Training in Critical Area Stabilization Techniques on</u> Agricultural Roads and <u>Unprotected Waterways - East and West Kauai</u>

Grantee: East Kauai Soil and Water Conservation Districts

Grant Award: Federal funds, \$67,623; Non-federal funds, \$88,546

Project Manager: Deborah Chang

Percent of project complete: 25%; Percent of funds remaining: 65%

<u>Purpose</u>. To participate in erosion control management and conduct technical transfer education to agricultural industry and private landowners to reduce sediment runoff. Major objectives include installation of erosion and sedimentation reduction improvements on problematic roads and drainage areas. Seven project areas are identified. Production of educational materials consists of five videos and 2 brochures. <u>Status</u>. Supervisory Committees were formed, site plans and designs discussed with engineer, contract with videographer signed, draft MOA being reviewed by project partners, Cooperative Conservation planning began with partners, and Core of Engineers reviewing submittals for proposed work at East site #1.

14). Project Title: Hawaii Association of Conservation Districts Water Quality

Training/Capacity Building

Grantee: Hawaii Association of Conservation Districts

Grant Award: Federal funds, \$40,000; Non-federal funds, \$42,000

Project Manager: Michael Tulang

Percent of project complete: 45%; Percent of funds remaining: 35%

<u>Purpose</u>. To devise pollution prevention project workshops, organize and convene statewide workshops on NPS pollution and technology transfer, and support implementation of MOU with other Federal/State/local agencies and entities. <u>Status</u>. Program coordination meeting held, review of various ongoing NPS measures, legislative and technical assistance programs, reviewed legislative bills germain to NPS pollution issues, provided testimony, and cosponsoring a statewide Drought Mitigation Seminar.

15). Project Title: Mo'omomi Watershed Project

Grantee: Molokai-Lanai Soil and Water Conservation District Grant Award: Federal funds, \$51,900; Non-federal funds, \$85,000

Project Manager: Paul K. Elia

Percent of project complete: 0%; Percent of funds remaining: 98%

<u>Purpose</u>. To control and reduce soil erosion, prevent and reduce sediments reaching the ocean waters, and to stabilize critical areas. Methods to achieve objectives include revegetation of eroded areas, structural stabilization of banks and rocky land areas, grade and install silt basins, and re-route access roads.

16). Project Title: Upcountry Maui Sediment and Runoff Control

Grantee: Central Maui Soil and Water Conservation District

Grant Award: Federal funds, \$100,000; Non-federal funds, \$100,000

Project Manager: Doug MacCluer

Percent of project complete: 30%; Percent of funds remaining: 55%

<u>Purpose</u>. To prevent, control, and reduce erosion sedimentation and to control storm water runoff by implementing effective BMPs on pineapple fields. <u>Status</u>. Completed new diversions in field 263 and began work on waterways, preliminary work commenced on settling basins for fields 273 and 274, completion of new diversions in one field and began work on waterways in same field, also preliminary work has started on settling basins for additional fields.

Completed CWA Section 319(h) Grant Projects

During FY '99, four CWA Section 319(h) projects were completed. Below is a summary of each of these three projects and associated accomplishments.

1). Project Title: <u>Honolua Bay-Mokuleia Bay Project</u>

Grantee: West Maui Soil and Water Conservation District

Grant Award: Federal funds, \$104,740; Non-federal funds, \$80,000

Project Manager: David Nobriga

<u>Purpose</u>. Honolua Bay suffers from severe NPS pollutants. The Bay has been designated as a Marine Life Conservation District. The purpose of this project is to implement corrective measures to decrease runoff transported in Honolua Stream and Bay. Improvement efforts are concentrated in the lower one-third of the watershed where much of the lands are in pineapple cultivation, cattle, and golf courses. <u>Status</u>. Completed plastic mulch catchment fence at Field 53, completed drainage improvements to Field 45 road, silt basins installed, and gulch drainage improvements completed.

2). Project Title: Erosion and Sediment Control Training

Grantee: County of Maui, Department of Public Works and Waste Management

Grant Award: Federal funds, \$88,000; Non-federal funds, \$59,000

Project Manager: Aaron Shinmoto

<u>Purpose</u>. This project sought to conduct a series of training workshops to educate contractors, engineers, inspectors, farmers, golf course and resort operators, and other interested persons in best management practices (BMPs) to control erosion and sediment loss. The project also formed a working group to review and revise Maui County's Soil Erosion and Sedimentation Control Ordinance to reflect effective BMPs. The waters off West Maui are listed as a "water quality limited segment". Research and pilot studies have documented that much of the water quality problems of Maui County result from NPS pollution from agricultural, resort, and other urbanized activities. West Maui water bodies regularly exceed allowable nutrient and turbidity standards. As a result, severe macroalgal blooms and high turbidity persist.

Benefits of this project included the adoption of a revised grading ordinance—including erosion and sediment control BMPs for all grading work requiring and not requiring permits—by the Maui County Council. The revised grading ordinance met federal guidance under the Coastal Zone Act Reauthorization Amendments of 1990. Over 100 people attended workshops held on Maui, Molokai, and Lanai to educate the public, agency representatives, and the business sector on the new grading ordinance, teach procedures for deriving an effective erosion control plan, and discuss proper methods for installation of BMPs. Other counties are looking to Maui County's efforts as a springboard for revising their own grading ordinances.

3). Project Title: <u>He'eia Coastal Restoration Project</u>

Grantee: Friends of He'eia State Park, Inc.

Grant Award: Federal funds, \$60,000; Non-federal funds, \$95,000

Project Manager: Carole J. McLean

<u>Purpose</u>. Objectives and goals of this project included expanding and enhancing the He'eia Stream and coastal area by replacing alien coastal plant species with native strand species. The He'eia shoreline and riparian zone have been continually degraded due to years of sedimentation (both natural and human-induced) and encroaching alien vegetation. Restoration of native coastal plant species coupled with native riparian species aids in continued protection of Kaneohe Bay, lowers maintenance costs, and provides additional habitat for endangered flora and fauna.

Over a two year period of time, alien riparian vegetation was removed, by hand, and the area was replanted with native species. Over 2000 school children participated in trail building and mangrove removal, 3000 community workers volunteered for stream restoration efforts, and 500 native milo and 14 koa trees were planted along riparian zone. Access trails were constructed parallel to the stream, and thousands of community volunteers—comprised of service clubs, businesses, students, and prison workers—provided labor to facilitate project implementation. The hands-on nature of the project created an opportunity for an outdoor classroom in which volunteers learned about the watershed system of the He'eia ahupua'a. Aside from field work, over fifteen presentations were conducted to familiarize the community with the needs and benefits of the project. Lastly, students from Windward Community College participated in limited water quality studies.

4). Project Title: <u>The Integration of Aquaculture with Taro Production in Hawaii: A Commercial Demonstration of Pollution Abatement, Soil and Water Conservation, Controlled Eutrophication and Waste Recovery</u>

Grantee: University of Hawaii, College of Tropical Agriculture and Human Resources Grant Award: Federal funds, \$83,875; Non-federal funds, \$56,750

Project Manager: Ramon de la Pena

<u>Purpose</u>. The project goals were to integrate the production of taro and fish in a manner which would create a system supporting nutrient recycling, leading to effective growth and productivity of fish and taro crops. Recycled nutrients coupled with a decrease in the use of fertilizers and pesticides aid in alleviating polluted runoff containing pesticides and nutrients. The project addressed current methods of taro production whereby the application of pesticides and fertilizers is used routinely in commercial production. Mechanical multi-tillage cultivation methods discharge large amounts of dissolved fertilizers and suspended silt into freshwater, estuarine, and marine receiving waters. Traditionally, taro cultivation in Hawaii entailed the use of natural "organic" and sustainable farming methods, where the addition of organic wastes and mulches to the taro fields supplied the primary source of plant nutrients, eliminated weeds, and minimized soil erosion. Intensive aquaculture practices also contribute pollutants to receiving water bodies.

Project implementation took place in Niumalu, Kauai, and incorporated test plots comprised of taro crops and tilapia and catfish. The majority of taro production on Kauai takes place within the Hanalei National Wildlife Refuge, a place used almost exclusively by endangered waterbirds. Hence, there is added incentive to decrease the amount of pollutants discharged into receiving water bodies in the area. Results of experimental taro plots indicated that the taro functioned effectively as a "biofilter" to recover nutrients and reduce Total Dissolved Solids in discharged

effluent. Intensive aquaculture with taro production resulted in a yield of 3,277 kg of fish and estimated gross sales of \$18,886. An increase in benthic invertebrates was also noted in taro ponds which received aquaculture effluent, as opposed to chemical fertilizers in control plots. There was also a significant increase in waterbird sightings (feeding, resting, or rearing young) within and adjacent to the project site.

Selected CWA Section 319(h) Grant Projects for FY '99

The Polluted Runoff Control (PRC) Program requests proposals annually for projects which seek to prevent, control, and/or reduce NPS (NPS) pollution statewide, with an emphasis on Category 1 Watersheds (those not meeting or in imminent threat of not meeting clean water standards), and for implementing portions of the Hawaii Coastal Nonpoint Pollution Control Plan (HCNPCP). Below are summations of the eight selected CWA Section 319(h) projects for FY '99.

1). Project Title: <u>Kalihi Community Riparian Improvement Stream Project, Phase II</u>
Grantee: Hawaii's Thousand Friends, including assistance from Ahupua'a Action Alliance
Grant Award: Federal funds, \$30,000; Non-federal funds, \$30,000
Project Coordinators: Anna Salavea, Ben Manuel, and Ilima Morrison

<u>Purpose</u>. To facilitate long-term restoration of Kalihi stream to its former central place—an asset in the life of the community. Activities include producing an educational video, depicting the cultural and natural history of the stream; continuing community stewardship efforts; and pursuing restoration and interpretive facilities along segments of Kaewai and Kalihi Streams. The video will be multi-lingual and made available at libraries, schools, and will be presented to Neighborhood Boards and other groups throughout the watershed. Stream restoration includes clearing invasive vegetation, removing debris, conducting an inventory of riparian flora and fauna, and planting native seedlings.

2). Project Title: The Waters of Kawainui Marsh: An Educational/Interactive Website by The Lanikai Elementary School Sixth Grade Academy

Grantee: Learning Education Technology & Lanikai Elementary School Grant Award: Federal funds, \$29,360; Non-federal funds, \$29,360

Project Manager: Lauren Apiki

<u>Purpose</u>. To educate a broad variety of residents--via an interactive, educational web site--concerning the adverse impacts of NPS pollution, and provide low-impact activity alternatives. Students will obtain general computer skills, conduct limited scientific testing of the Marsh's water quality properties, learn about the water cycle and environmental functions of the Marsh, and engage in activities to produce Web multimedia documents for the site. The Website will be entered in the International CyberFair 2000 student contest.

3). Project Title: <u>Cover Crops for Erosion Control in Tree Farms to Reduce Nonpoint Source</u> <u>Pollution in the Koolaupoko, Oahu Watershed</u>

Grantee: Hawaii Agriculture Research Center, Forestry Department Grant Award: Federal funds, \$11,000; Non-federal funds, \$11,000

Project Manager: Nick Dudley

<u>Purpose</u>. Identify effective ground cover species--to reduce soil erosion and other impacts--for established *Acacia koa* demonstration sites located in the Koolaupoko Watershed. The project will entail collection of seed and/or vegetative plant material, propagation of cover crops for screening, preparation of site, and evaluation of various seedlings for their potential as ground covers in tree farms.

4). Project Title: The Pearl Harbor Watershed Environmental Restoration Projects

Grantee: Pearl Harbor 21 Service Leadership Program, University of Hawaii—Leeward Community College.

Grant Award: Federal funds, \$55,000; Non-federal funds, \$55,000

Project Manager: Joseph Chernisky

<u>Purpose</u>. To survey, identify, and monitor sources of polluted runoff and the impact of urban growth on the critical coastal zone of Pearl Harbor. The plan will also implement small scale Best Management Practices (BMPs) to help preserve and restore Pearl Harbor's uniqueness. This project entails conducting recruitment efforts for volunteers, initiating volunteer monitoring program field surveys at all sites, preparing reports on water quality and seasonal habitat data analysis, monitoring nutrient and pesticide loads, and participating in public outreach activities.

5). Project Title: Salt Lake Watershed Improvement Program

Grantee: Department of Environmental Services, City and County of Honolulu

Grant Award: Federal funds, \$20,000; Non-federal funds, \$20,000

Project Manager: Gerald Takayesu

<u>Purpose</u>. To reduce both the discharge of pollutants into Salt Lake and associated odors by employing BMPs and public participation. Activities include identification and implementation of BMPs to minimize the discharge of pollutants, monitor water quality in Salt Lake, continue outreach education using school and community resources, and expand efforts to more effectively control the use of nutrients and pesticides.

6). Project Title: The Watershed Restoration Corps

Grantee: Waimanalo Health Center

Grant Award: Federal funds, \$80,000; Non-federal funds, \$80,000

Project Manager: Lisa Ferentinos

<u>Purpose</u>. To reduce sediment and associated contaminants entering the streams from eroding banks and adjacent areas by expanding the existing stream bank revegetation area and creating new revegetation areas. NPS education and implementation efforts will also be pursued. Project objectives include: establishment of Watershed Restoration Corps (comprised mostly of students), conduct site selection, implement identified BMPs, continue plant propagation at nursery, continue monitoring TMDL levels, monitor survival rates of seedlings, and conduct media events for outreach activities.

7). Project Title: <u>Waianae Coast Community-Based Watershed Management Program</u>, Phase 2

Grantee: Department of Environmental Services, City and County of Honolulu

Grant Award: Federal funds, \$35,000; Non-federal funds, \$42,000

Project Manager: Timothy Trang

<u>Purpose</u>. To reduce pollution by increasing stakeholder's sense of watershed stewardship. Significant partnerships between agencies and various leeward schools to promote environmental education are in place. Grant will aid in continuing these efforts, and begin new ones. Activities include: continuing public outreach; recruiting groups for storm drain stenciling, coordinating cleanups and stream monitoring; maintaining debris barriers at Ulehawa Stream; purchasing equipment for stream monitoring; and expand school web sites and produce brochures and videos.

8). Project Title: <u>Increasing Public Awareness of Pollution Risks Using Farm*A*</u> Syst/Home*A*Syst

Grantee: University of Hawaii, College of Tropical Agriculture and Human Resources, Departments of Agronomy and Soil Science and Agriculture and Resource Economics Grant Award: Federal funds, \$64,690; Non-federal funds, \$64,931

Project Manager: Carl Evensen

<u>Purpose</u>. Disseminate educational and pollution self-assessment materials--which are localized versions of nationally developed materials--to individuals and groups to facilitate home-based pollution risk assessments. The project includes conducting 21 workshops targeting community members, teachers and agency representatives on all islands on usage of materials; provide oral presentations to neighborhood boards; prepare and distribute workshop promotional materials to local media outlets; develop and erect informational displays for communities; and monitor effectiveness of workshops and educational materials.

Concerning the selection process for Section 319(h) projects, eligible applicants consist of a variety of non-profit organizations, universities, and other State and county agencies. Selected applicants are required to submit final project proposals. Both grants and loans are available.

Priority consideration for proposals is given to projects which: meet proposal requirements, implement portions of the HCNPCP, contain widespread implementation of Best Management Practices, contain a trial of an innovative control practice, and are part of a comprehensive watershed initiative/management effort addressing NPS pollution in watersheds Statewide and Category 1 Watersheds. Projects should also contain one or more of the following strategies: short- and long-term goals, on-ground management of watersheds, abatement of water quality impairments from existing sources and preventative measures, education/outreach, integration with other programs, interagency cooperation, and efficient, responsible budgets. Technical staff evaluates initial proposals.

Final proposals are reviewed by an interagency panel, based on the following criteria: likelihood of success (20%), water quality issue addressed (15%), potential for significant results/benefits (15%), geographic target (15%), demonstration of interagency cooperation (10%), outreach/education (10%), costs (10%), and watershed initiative (5%). The time frame for the solicitation process is as follows: an initial public announcement of grant availability in May, proposal due date at the end of June, final proposal due date at the end of early September,

interagency selection late September, notification of selection by October, and the preparation of a contract within 4-6 months from the time of selection.

Hawaii Coastal Nonpoint Pollution Control Program-CZARA

The PRC Program continued its involvement with CZARA by developing projects or undertaking tasks which address the federal Findings and Conditions and the Environmental Assessment of the Hawaii Coastal Nonpoint Pollution Control Management Plan (HCNPCP). Cooperation was facilitated by DOH through the MOA created earlier with the CZM program. The MOA allowed DOH to transfer federal funds to CZM to fund a position tasked with HCNPCP implementation plan development. This CZM planner was instrumental in coordinating input from several agencies and members of the Polluted Runoff Forum, and aided in further developing Hawai'i's Implementation Plan For Polluted Runoff Control (HIPPRC, draft version).

The PRC Program continued to collaborate with the CZM program to revise the <u>Hawai`i's</u> <u>Implementation Plan For Polluted Runoff Control</u> (draft version) based on federal comments by EPA and NOAA. These included drafts submitted to EPA and NOAA in July 1999, August 1999, and October 1999. The PRC program and CZM program also continued to conduct numerous public and focus group meetings in order to introduce and solicit comments for the implementation plan (see Appendix F). For example, PRC and CZM programs held seven statewide, public informational meetings from July 12, 1999 to July 22, 1999 and 21 more from October 18, 1999 to November 22, 1999. In addition, the programs conducted focus group meetings with Polluted Runoff Forum Advisory Committee members and other agency experts to address specific implementation items dealing with major polluted runoff categories.¹ The support of the public and various local, state and federal agencies are critical to successful implementation of the polluted runoff program and observing measurable environmental benefits in the State of Hawai`i.

The PRC and CZM programs plan to submit a revised and final <u>Hawai`i Implementation Plan for Polluted Runoff Control</u> as the State's upgrade to the <u>State's Nonpoint Source Managment Plan</u> (1990) and as a supplement to <u>Hawai`i's Coastal Nonpoint Pollution Control Program Management Plan</u> (June 1996) for the purpose of meeting EPA and NOAA conditions to establish an approved coastal nonpoint source program.

EPA has informally agreed that the implementation plan has addressed the 9 key elements essential for maintaining an effective polluted runoff program. However, the EPA and NOAA

¹ The polluted runoff categories include agriculture, urban, forestry, marinas and recreational boating, hydromodifications and wetland and riparian areas, as indicated in Hawaii's Coastal Nonpoint Pollution Control Program Management Plan (June 1996). Focus group meetings were conducted based on polluted runoff category. For example, experts in the agricultural sector were invited and participated in the Agricultural category discussion of implementation action plans. It must be noted that during the meetings the members were also encouraged to participate in other categories of discussion as well, if they wished to do so.

are concerned with the schedule for accomplishing some of the tasks and activities identified in the plan, especially under Coastal Zone Act Reauthorization Amendments, § 6217 requirements and EPA/NOAA findings and conditions on the State's Coastal Nonpoint Control Program. EPA and NOAA have also noted that the State has limited resources to hire staff or contract activities to help develop and implement this program. Finally, EPA and NOAA believe that the PRC and CZM programs must place immediate emphasis on management measures which address agriculture and urban sources of polluted runoff, while allowing more time to implement and complete activities for the other sectors (forestry, wetlands and riparian, etc.).

The PRC and CZM programs have continued to revise the <u>Implementation Plan for Polluted Runoff Control</u> to (1) best meet the time frames identified in the NOAA/EPA Findings, (2) seek reasonable options for continued staffing for program implementation and (3) reschedule activities of the plan related to agricultural and urban sources of polluted runoff so they can be accomplished sooner.

Unified Watershed Assessment Program (UWA)

On October 15, 1998, the Department of Health, submitted <u>Hawai`i`s final Unified Watershed</u> <u>Assessment and Watershed Restoration Priorities</u> to the federal Unified Watershed Assessment Action Team on behalf of Hawai`i`s Interagency Unified Watershed Assessment Committee. The document described the State's process of categorizing its watersheds and identifying those watersheds in greatest need of restoration (category 1², priority watersheds). Approval of the document resulted in additional funding for the State to restore and protect the category 1, priority watersheds.

On December 11, 1998, the Department of Health received a letter confirming that the State would receive an additional \$ 770,100 to support implementation of Watershed Restoration Action Strategies³ (WRAS) for the category 1, priority watersheds identified in Hawai's final Unified Watershed Assessment and Watershed Restoration Priorities (see Table 1).

The additional funds, also known as *incremental* funds, were added to the base funds of the Section 319(h)

Table 1. Hawai`i's five (5) category 1, priority watershed regions as identified in <u>Hawai`i's final Unified Watershed Assessment and Watershed Restoration Priorities.</u>

ISLAND	WATERSHED
Hawai`i	Pelekane Bay
Kaua`i	Nawiliwili
Maui	West Maui
O`ahu	Ko`olaupoko
Moloka`i	South Moloka`i

² Category 1 Watersheds- Watersheds in Need of Restoration. These watersheds do not currently meet, or face imminent threat of not meeting, clean water and other natural resource goals.

³ Watershed Restoration Action Strategies are response plans to restore watersheds that do not meet clean water, natural resource, and public health goals and are in most need of restoration.

program. The base funds, valued at \$770,100 continued to support the State's polluted runoff projects and program activities. On the other hand, the incremental funds were strictly designated for restoring the State's priority watersheds. In total, the Department of Health received Fiscal Year 1999 Section 319(h) funding valued at \$1,540,200.

On January 28, 1999, the Department of Health presented information about the Section 319(h) incremental funds to the Hawai`i Technical Committee on Nonpoint Source Pollution and the National Resource Conservation Services' Hawai`i State Technical Committee. During the meetings, the Department of Health solicited current information from the committees regarding existing WRASs and/or watershed restoration projects in the priority watersheds. Further discussion, direction and recommendations on the issue continued at the Unified Watershed Interagency Meeting on February 16, 1999.

During the Unified Watershed Interagency Meeting, the Department of Health Clean Water Branch Polluted Runoff Control Program Coordinator introduced the UWA historical background, reviewed the status of the priority watersheds selected for incremental funds, and sought advise on incremental fund distribution for the watersheds. The focus group decided to distribute the money accordingly:

- C Pelekane Bay, Hawaii \$340,000
- C Nawiliwili, Kaua'i \$67,000
- C West Maui, Maui \$286,100
- C Ko`olaupoko, O`ahu \$10,000
- C South Moloka'i, Moloka'i \$67,000

During the next few months the Department of Health began assisting the selected watershed coordinators in developing their UWA project proposals. From March 1, 1999 through May 20, 1999 the Department of Health communicated with the lead watershed coordinators in the priority areas and supplied them with a guidance package to support their proposal development. The Department of Health received draft proposals from all coordinators by July 1, 1999 and by September 15, 1999 in-house staff critically evaluated the proposals. All comments were documented.

Project reviewers decided that the draft proposals would require further revision to meet the standards of WRASs implementation and development as identified in the federal Clean Water Action Plan. Therefore, the next steps of UWA activities would involve DOH assistance in refining all UWA proposals drafted by the watershed coordinators and developing contracts to fund the projects.

The UWA project titles, fiscal summaries, general proposal objectives, lead coordinators and locations are presented in Table 2. The projects in the Nawiliwili, South Molokai, and Ko`olaupoko watershed regions are assessment and WRAS development-type projects, which will exhaust twenty percent (20 %) of the incremental funds. On the other hand, the projects in the West Maui and Pelekane Bay watershed regions are restoration projects, which will consume

the remaining eighty percent (80 %) of the incremental funds. The restoration projects will implement recommendations from existing WRASs.

Please note that in the Ko`olaupoko watershed region, the Kailua Bay Advisory Council had been identified as the lead watershed coordinator to manage the UWA project. Unfortunately, the council had indicated that they could not implement the project for the State. As a result the Department of Health will need to request new proposals from other watershed coordinators and award the contract to a watershed coordinator selected from the applicant pool. The Department of Health will ask the Kailua Bay Advisory Council, among other partners, to assist in the development of a "request for UWA project proposals" and selection of a lead watershed coordinator for the Ko`olaupoko watershed region.

Table 2. Summary of UWA projects.

PROJECT	FISCAL SUMMARY	NONPOINT SOURCE OBJECTIVE	CONTRACTOR	LOCATION
Watershed Assessment- Nawiliwili Watershed	Budgeted: \$ 67,000 Match: \$44,700 Total Cost: \$111,700	Assess and develop a watershed restoration action strategy for the Nawiliwili Watershed, Kauai	East Kauai Soil and Water Conservation District	Kaua`i
Watershed Assessment- South Moloka`i	Budgeted: \$ 67,000 Match: \$44,700 Total Cost: \$111,700	Assess and develop a watershed restoration action strategy for the South Molokai Watershed, Molokai	Molokai-Lanai Soil and Water Conservation District	South Moloka`i
Watershed Assessment- Ko`olaupoko Region	Budgeted: \$ 10,000 Match: Total Cost:	Funds to complete watershed assessment strategy and development of a watershed restoration action strategy.	To be determined	Oahu (Windward)
Watershed Restoration- West Maui	Budgeted: \$286,100 To implement a feral ungulate control project and diversion and terrace system improvements. The two projects were recommended in the		West Maui Soul and Water Conservation District	West Maui
Watershed Restoration- Pelekane Bay	Budgeted: \$ 340,000 Match: \$223,200 Total Cost: \$563,200		Mauna Kea Soil and Water Conservation District	South Kohala, Hawaii (Big Island)

Special Projects

The Department of Health, Clean Water Branch, Polluted Runoff Control program was responsible for managing or assisting in the management of other special projects in addition to Section 319(h) projects. These included West Maui Appropriation projects and phase 1 Ala Wai Watershed Improvement projects.

West Maui Appropriation Projects

There are four projects in the West Maui watershed region administered by the Polluted Runoff Control program. The projects include the Maui County Watershed Coordinator Project, the Pioneer Mill Project, the Pollution Prevention Project and the West Maui Soil and the Watershed Conservation District (SWCD) Best Management Practice (BMP) Implementation Project on Maui Pineapple Company and Pioneer Mill Company Land. The progress of all projects are described below.

1). Project Title: Maui County Watershed Coordinator Project

Grantee: County of Maui Department of Public Works and Waste Management

Grant Award: Federal funds, \$150,000; Non-federal funds,

Project Manager: Howard Hanzawa

Percent of project complete: 12 %; Percent of funds remaining: 83 %

<u>Purpose</u>. This project aimed to generate a part-time watershed coordinator position. The coordinator would help facilitate the incorporation of watershed management principles and practices in West Maui watershed region. <u>Status</u>. A request for proposals for the services of a watershed coordinator was advertized in the Maui News and Ron Fukumoto Engineering, Inc was selected and issued a contract to initiate work on the required products and services. Currently, the coordinator is developing a draft Best Management Practices manual for Maui County.

2). Project Title: Pioneer Mill Project

Grantee: West Maui Soil and Water Conservation District

Grant Award: Federal funds, \$40,000; Non-federal funds, \$36,000

Project Manager: James Falconer

Percent of project complete: 100 %; Percent of funds remaining: 0 %

<u>Purpose</u>. The purpose of the project was to install terrace systems and several small sedimentation basins on Pioneer Mill Company, Ltd. property in West Maui. <u>Status</u>. The project was completed and the final report was submitted on July 30, 1999. The terrace systems were constructed in different fields which prevented excessive sedimentation from occurring in Hahakea Gulch. The completed terrace systems and sedimentation basins had the capacity to control runoff resulting from a 10 year, 24 hour storm event. The systems also provided adequate protection to access roads running vertically within the fields preventing gully erosion. The project successfully installed effective best management practices (BMPs) on agricultural lands. Agricultural sources contribute a significant amount of pollution to the waters of the State.

3). Project Title: <u>Pollution Prevention (P2) Assistance for Maui Hotels, Condos & Golf</u> Courses

Grantee: Social Science Research Institute, Office of Research Services, University of

Hawaii at Manoa

Grant Award: Federal funds, \$70,95; Non-federal funds,

Project Manager: Michael P. Hamnett

Percent of project complete: 0 %; Percent of funds remaining: 0 %

<u>Purpose</u>. The purpose of the project was to promote the use of best management practices by hotels, condominiums and golf courses on Maui to reduce potential sources of water pollution. This would be accomplished by developing a voluntary (nonregulatory) educational and assistance program to improve awareness and help protect water resources. <u>Status</u>. The Pollution Prevention Project received a "Notice to Proceed" with project activities on September 14, 1999. No progress has been reported to date.

4). Project Title: West Maui SWCD BMP Implementation Project on Maui Pineapple

Company and Pioneer Mill Company Land

Grantee: West Maui SWCD

Grant Award: Federal funds, \$285,000 Non-federal funds, \$90,000

Project Managers: David Nobriga and Wes Nohara

Percent of project complete: 0 %; Percent of funds remaining: 0 %

<u>Purpose</u>. This project will focus on implementing BMPs to remediate sediment runoff from agricultural lands. The practices will include the installation of new sedimentation retention basins, modification of existing sedimentation retention basins, and installation of access roads to maintain the basins. <u>Status</u>. Currently, the final contract between West Maui SWCD and the State is being reviewed by the Department of Health's Administrative Services Office and the Attorney General. Once approved, the contract will be sent to the contractor for proper signatures. Soon after, the Contractor will receive a notice to proceed with the contract activities.

Ala Wai Canal Watershed Improvement Project (phase 1)

The Ala Wai Canal Watershed Improvement Project (phase 1) consists of fifteen (15) Ala Wai subwatershed projects which are at various levels of completion. Generally, one-third (1/3) of the projects are complete, one-third (1/3) are fifty percent (50 %) complete, and the remaining one-third are (1/3) twenty five percent (25 %) complete or less. The PRC program continues to manage the phase 1 projects, however, the Ala Wai Community will be responsible for phase 2 project activities. A complete report noting the recent progress of all projects is attached as Appendix E.

Participation in Committees

PRC Program committee participation continues to be a core component of the PRC Program. In FY '99, PRC staff participated and assisted in coordinating a number of interagency meetings, workshops, focus groups, and community meetings. Below are brief descriptions of staff participation in these events.

1). <u>Hawaii Association of Conservation Districts NPS Technical Committee</u>
Provide technical assistance and information regarding NPS Pollution to the Conservation Districts. Attended several meetings and reviewed UWA proposals.

2). Coral Reef Task Force

U.S. Islands Coral Reef Initiative Workshop was held in 1997. In 1999 the Coral Reef Task Force agreed to consider funding projects put forth by the Coral Reef Initiative Workshop. Hawaii was one of a number of Territories and States requesting the opportunity to update and modify this list to more accurately reflect current coral reef management, education, research and community view points and concerns. The Polluted Runoff Control Program was invited in June to meet with coral reef educators, researchers, and community groups to review and suggest specific funding priorities for the Hawaii Coral Reef Initiative.

A. Water & Air Quality Working Group

This group is charged with developing, recommending, and seeking or securing implementation of measures necessary to reduce and mitigate coral reef ecosystem degradation due to water-borne and air-borne sources of pollution. The Group is focusing its initial efforts on activities which will address the following areas: biological and physical degradation; dredging and development activities; vessel discharges; and air deposition of pollutants.

3). Source Water Assessment Planning Program (SWAP)

This working group was formed to develop a Source Water Assessment Protection Plan. The group is made up of representatives of various Department of Health programs, and is lead by the Safe Drinking Water Branch. PRC staff attended SWAP meetings to discuss integration of coordination efforts with UWA.

4). <u>State Erosion Control Committee (new)</u>

The purpose of this committee is to exchange information on available methods currently used to evaluate erosion rates and sediment transport in Hawaiian watersheds, with the goal of identifying potential complementary uses of different methods as well as shortcomings that need to be addressed. PRC staff organized a meeting in the first quarter of '99, and attended the state meeing.

5). <u>Interagency Water Quality Action Program Training Committee</u>

This committee plans, organizes and facilitates the Annual Interagency Water Quality Training Conference. The committee chooses a theme each year and invites members from government agencies and the public both to present and attend the conference.

6). <u>Kailua Bay Advisory Committee</u>

In October 1996, as a result of a lawsuit entitled <u>Save Our Bays and Beaches</u>, <u>Hawaii's Thousand Friends</u>, <u>Sierra Club</u>, <u>and Surfrider Foundation v. City and County of Honolulu</u>, a Consent Decree was approved and KBAC was created to (1) study the non-point sources of pollution in

the Kailua/Kaneohe/Waimanalo watershed areas, (2) determine effective measures to mitigate such pollution, (3) oversee the implementation of measures to mitigate such pollution, and (4) oversee the volunteer water quality monitoring project to be implemented under this Consent Decree.

7). <u>Hawaii Watershed Training Committee</u>

Funding for the watershed training course is in an EPA-HQ contract with Tetra Tech. Tetra Tech has provided watershed training courses across the country. This committee provided input to Tetra Tech to tailor the course for Hawaii's needs. The watershed training workshop, *Tools for Working in Your Watershed*, was held January 14 - 15, 2000, at Windward Community College.

8). <u>Pollution Prevention Working Group</u>

This working group is described as an assembly of individuals involved in pollution prevention or regulatory activities whose goals are to increase communication and outline areas for coordination among programs. March 2, 2000 meeting discussed the Pollution Prevention Assistance Program for West Maui's Hotels, Condos, and Golf Courses, Earth Month activities, Pollution Prevention Networks, Investing in the Environment awards, and the Oahu Reuse Forum.

9). Natural Resources Conservation Service State Technical Committee

Representatives from State and Federal agencies meet to address specific Farm Bill programs. Three subcommittees were established to discuss and make recommendations regarding; (1) Environmental Quality Incentives Program (EQIP), Forestry Incentives Program (FIP), Farmland Protection Program (FPP), and other non-wildlife or wetlands related issues; (2) Wetlands Conservation (WC) provisions of the Farm Bill, Wetlands Reserve Program (WRP), Conservation Reserve Program(CRP), and Wildlife Habitat Incentives Program (WHIP); (3) Public Information, Outreach, and Education.

A. State EQUIP Management Sub-Committee

Establish guidelines and set objectives for the EQIP Education Assistance Program (EA). The EA program was created to strengthen implementation of EQIP conservation plans. To accomplish this goal, funds are allocated to EA to cover the expense of conducting education projects.

10). Water Quality Education Network Committee

Government agencies, educators, and interested organizations meet to discuss ongoing or proposed water quality education programs. Members provide updates on what their group is doing and offer advice or recommendations to other members.

PRC staff also attended county public information meetings addressing final approvals for revamped grading permits, and attended Hawaii Environmental Association Conference and assisted in set-up of educational display.

State Revolving Funds Projects

Hawaii has began to utilize more State Revolving Funds (SRF) for NPS control. Prior to 1999, there were only four NPS projects listed on the State Priority List for SRF. The PRC Program has modified its CWA Section 319(h) Grant Package to include a description of, and opportunity to, apply for SRF funds for NPS pollution projects. The Wastewater Branch has been doing its part in promoting an increase in application of SRF towards NPS issues. In addition, EPA's broader interpretation of what qualifies as a NPS SRF project has helped the state to increase the number of projects listed on the State Priority List for SRF Projects. Hawaii has now fourteen projects listed, and hopes to fund at least three of these. Since 1998, over \$4,000,000 has been designated from SRF funds towards NPS control projects. The City and County of Honolulu has been the most aggressive in ascertaining these funds through great proposals, such as widespread BMPs installation for the Ala Wai Watershed, de-watering facilities, and pumper vehicles for storm drain catchments. Appendix A, Part B.5. contains further details.

Monitoring and Total Maximum Daily Load

The PRC program continued to encourage and support programs for environmental education in high priority watersheds and watersheds throughout the State. For example, the PRC program continued to develop a MOA with the Hawaii State Department of Education to recruit and organize schools within the Ala Wai Watershed and other statewide schools for volunteer water quality monitoring, training, and environmental critical analysis. The PRC program expects to provide technical support services, assist in scheduled training workshops, and promote environmental stewardship efforts of the project.

The PRC program continued to engage in monitoring activities related to Total Maximum Daily Load (TMDL) development consistent with the DOH TMDL schedule for Section 303(d) listed waters. For example, the PRC program continued to participate in bimonthly TMDL coordination meetings with representatives from EPA, DOH Environmental Planning Office, DOH CWB monitoring section, University of Hawaii and the community. To date, meeting discussions have involved current activities related to TMD development in Waimanalo, and scheduled development in Kawa stream. For example, plans to link water quality data and other information geospatially into a GIS system were proposed for the Waimanalo area. Review of CWB monitoring in the Waimanaol area had revealted that total nitorgen, phosphorus and C. perferinges were all high at CWB sampling sites. The CWB monitoring section also described how they expected to use silicate leveles to estimate runoff levels. Future planning and direction to continue establishing the Waimanalo TMDL and beginning the Kawa TMDL would be the subject for the next set of monitoring activities.

Public Education/Outreach Activities

Public outreach and educational efforts have always been one of the PRC Program's strongest components. Throughout the year the PRC Program conducted lectures on NPS and watersheds at colleges, high school science classes, and elementary schools. We aimed to reach more diverse audiences this year. The best examples of our efforts are the CWB's water monitoring

training session provided to Molokai Fishpond Practitioners. Three DOH staff members presented two training sessions to about 20 individuals concerning how they can do self monitoring of their fishponds water quality, which is a permit requirement, and methods to control polluted runoff. In addition our 'Apoha mascot made a school visit to one of Hawaii's few elementary schools for Muslims. Lastly, the PRC Program has reached out to its "Partners in the Pacific". The PRC Program and CZM conducted a half day training session to American Samoan CZM staff, who were participating in a one-week training session on environmental planning, laws, and policy (sponsored through the University of Hawaii's Sea Grant and Environmental Center Programs). The American Samoan personnel were briefed on our HCNPCP, intent to develop a consolidated HIPPRC, and watershed planing tools. While in the Cook Islands, the PPC met for an hour with government water quality personnel to discuss monitoring, rules, and public education in their country. PRC staff later sent a package of our various public education/outreach materials for their sampling.

The PRC Program has also made special consideration in meeting the environmental needs of our native Hawaiian population. In Appendix H, a summary of these activities is provided in the Hui 'Imi Annual Report.

The PRC Program worked with Moanalua Gardens Foundation and produced a one hour science show targeting 4th and 5th graders. This show was broadcasted on Hawaii Public Television and rebroadcast several times. Issues of NPS and solutions were presented, and A'poha made a special appearance. This program was viewed statewide and over sixty schools signed up to receive the associated educational package. This gave the program wider and immediate exposure to get our message across to the public. We will likely continue this partnership. Additionally, a grant was provided to Youth for Environmental Services to continue storm drain stenciling—an activity proven effective and cost-efficient. PRC staff participation in various events included: the Shower Tree Festival, the Fishermen's Festival, Palolo Pride, and Earth Day. Further, the PRC Program continued its participation as an active member of the Environmental Educators Network.

Thanks to DLNR, the PRC Program entered into a special partnership with local playwright and children author Lisa Matsumoto. Ms. Matsumoto wrote "Under the Clear Blue Sea" which is an hour-long play that introduces Hawaii's unique marine environment and makes the viewers aware of impacts, such as water pollution, on the marine environment. The PRC Program sponsored the video reproduction and the play, distribution of the video, and deferred costs so that the play could be done live at schools around the state. This year the PRC Program entered into the same partnership with the new play, "Voices of the Rainforest".

Lastly, thousands of pieces of educational materials were distributed statewide per request or at education events. Materials included our popular coloring book and NPS pamphlet. A new pamphlet, instructing homeowners with cesspool or septic systems, on how to better manage their system was designed and distributed by the DOH-Wastewater Branch. PRC paid for the duplication of this brochure as it fits into our addressing on-site septic systems in our HCNPCP.

In general, our materials were distributed to private businesses, federal partners like the US Navy and Natural Resources Conservation Service, state partners like the SWCDs, non-profits like Friends of Heeia, and schools from Kaunakakai to Kalihi Kai. For a detailed breakdown of public outreach events please refer to Appendix A, Part D.

Future Needs for Polluted Runoff Control Program Development

It is obvious that this year the Polluted Runoff Control Program had a successful and stable year. However, the PRC Program has identified some needs it should address to continue its growth in capacity and success. The PRC Program's success this past year is due, in part, to the fact that personnel resources were not as much as an issue as in other years. By July the PRC Program got its planner position converted to permanent, the EHS position budgeted, and was approved to have a budgeted, federally funded, Grants Management Specialist (GMS) established. The program's IPA left at the end of August, so the need to fill the GMS became more critical. Unfortunately, the Clean Water Branch has to have an approved reorganization to allow all the PRC positions to be added to the branches position count, and to allow that a GMS be established there. The CWB Reorganization was submitted in October, 1999, and needs the approval of the Department Director, and fiscal office. This has yet to be approved. Therefore, the PRC Program identifies getting the CWB Branch reorganization approved and being allowed to fill the GMS position as its most critical need. Until then, the program will be short handed and hard pressed to keep up withe the workload the IPA has managed for us. A second personnel issue is that the program needs to get the present person in the EHS position on to civil service list, so that he may be hired permanently into the position. This would entice the individual to stay longer term with the program, thereby helping maintain a stable workforce. A third personnel issue is the PRC Program submitted in the Administrations budget, the conversion of the EHS and GMS into permanent, budgeted, federally funded positions for the branch. This conversion will assist in making the positions more attractive to potential candidates and contribute to the likelihood of staying in the program long-term.

The PRC Program only receives approximately \$55,000 of State funds annually. This meets only 5% of its 40% match requirement. The PRC Program needs to ascertain increased State funding to better solidify its grant commitments and to better direct the use of its federal grant funds. One possibility is to be part of increased special funding that is tied to an increase state oil tax. Currently, DOH is requesting the five-cent tax per barrel of oil to fund environmental cleanup be increased to twenty-five cents per barrel. Since oil and its associated uses are one of the state's contributors to polluted runoff, some of the additional funds should come to this program. Such funding would be used to further implement Hawaii's Implementation Plan for Polluted Runoff Control (HCNPCP) and to support watershed initiatives.

The PRC Program wishes to increase its partnership among State, County, Federal, and non-profit agencies. These partnerships will be necessary to implement the HIPPRC. We also wish to expand our partnerships to our other Pacific counterparts. One way that this will be assisted is that former PRC Program employee, Mary Hogan, is now heading up American Samoa's Nonpoint Source Section in their CZM Program.

Our last need is to focus on implementing Hawaii's Unified Watershed Assessment. In lieu of the UWA tasks, the PRC Program has focused much of its energy on upgrading its State Management Plan with the development of the HIPPRC, and writing contracts associated with new West Maui Funds and Section 319 Projects. All the selected Tier One, Category One watersheds are anxious in getting started. The EHS has done much preliminary work in compiling reviews of the intial proposals. However, as the HIPPRC activities near completion, the PRC Program will make UWA work its main focus. The biggest caution is that these five watersheds are complex, and have diverse interests and issues. The PRC Program is cautious that it may not have the adequate level of personnel to carry this out when one compares the level of work that has gone into other local watershed initiatives such as Kailua Bay Advisory Committee, Ala Wai Watershed Committee, and the West Maui Watershed.

Attached is the FY 1999 end-of-year report matrix in Appendix A. Details of program accomplishments are listed on a quarterly basis for each workplan tasking. Appendix B depicts the uses of CWA Section 319 funds from 1990-1999. Information concerning completed Section 319 projects during this past year is included in Appendix C. Appendix D provides photographs of projects, outreach events, articles or awards given to the program throughout the year. A summary of the Ala Wai Canal Committee's Subwatersheds projects is in Appendix E. Appendix F includes copies of articles, press releases and notices concerning the development of HIPPRC. Unified Watershed Assessment maps of each island's Category 1 watersheds are in Appendix G. The Hui`Imi Report on PRC Program actions that benefit native Hawaiian's is in Appendix H.

APPENDIX A:

FY 1999 Summary of Activities by Quarter

Task No.	TASK DESCRIPTION	QUARTER 1 10/01/98- 12/31/98	QUARTER 2 01/01/99-03/31/99	QUARTER 3 04/01/99-06/30/99	QUARTER 4 07/01/99-09/30/99
Α.	ADMINISTRATION- Manage the PRC Program efficiently in accordance with the current PRC Program Workplan and PRC/NPS Program long-range planning documents to achieve the objectives in the CWB Strategic Plan.				
A.1	EPA Grant Requirements - Conduct activities to meet EPA grant requirements.				
A.1.1	Receive notification of EPA FY-99 grant award.		DOH notified of FY99 grant award		
A.1.2	Prepare and submit grant application and workplan for additional Section 319(h) per the Clean Water Action Plan, when and if appropriated (approval by 2/15/99)		Revised FY99 workplan submitted for incremental UWA funds. Approved by EPA.		
A.1.3	Prepare for and participate in end-of-year evaluation by EPA for FY-98.		End-of Year Report submitted; evaluation held in 1/99.		
A.1.4	Receive and comment on FY-2000 319(h) Program Guidance and recommendations per federal review of the Hawaii Coastal Nonpoint Control Plan.			Received fy00 grant guidance 4/99	
A.1.5	Prepare and submit draft copy of the FY-2000 PRC Program Workplan.			Submitted draft FY2000 workplan for 6/99 grant negotiations.	
A.1.6	Prepare and submit final copy of FY-2000 PRC Program Workplan.				In 8/99 final was submitted. EPA revised its grant allocation and requested SMP by complete, so final workplan was submitted with new figures in FY2000.
A.1.7	Receive EPA approval or conditional approval of FY-2000 Workplan.				Awaiting final approval by EPA.

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A.1.8	Document match requirements for ongoing grant years and submit to ERO. Secure match for grants with inadequate match.				Working with ERO on match documentation for FY95-99.
A. 1.9	Prepare semi-annual and end-of-year assessment reports to EPA with reference to core performance requirements. This is to include CPM #26, on how the 9 key elements are incorporated into the program.		FY99 end-of year report submitted and accepted.		No semi-annual reports were submitted
A.1.10	Update grant and budget amendments to ongoing NPS 319(h) Management Workplans.	FY94 grant extended to 12/31/98 in order to complete University of Hawaii Aquaculture/Taro project. FY95 grant extended to 07/31/99 FY96 grant extended to 12/31/99 FY97 grant extended to 06/30/00 11/19/98 FY98 Workplan amended to extend Susan Polanco's IPA, and to include a grant to DOE to do water quality training of teachers and develop a volunteer monitoring curriculum for schools.	Nothing to report	FY95 grant extended to 07/31/00 FY96 grant extended to 06/30/00 05/06/99 Requested a no cost extension to 03/31/00 for Manawainui Watershed project 05/18/99 FY99 Workplan amended and budget revised, increasing the total amount of assistance to \$ 1,559,700, which includes \$ 4,000 for the intermittent IPA, other In Kind Contributions reduced by \$ 10,000	FY97 grant extended to 12/31/01 FY98 grant extended to 12/31/01
A.1.11	Review and comment on draft EPA Program Implementation Guidance documents.				Commented on revised guidance 8/99.
A.1.12	Prepare and submit annual MBE/WBE report to EPA.	MBE/WBE report submitted on 10/30/98			
A.2	PRC Operational Activities - Conduct PRC Program operational activities				
A.2.1	Hold meetings with CWB Chief and PRC Program staff.	semi-monthly staff meetings held	ongoing	ongoing	ongoing

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A.2.2	Maintain individual progress using four quarter workplan chart.	Ongoing			ongoing
A.2.3	Provide PRC comments to EIS/EAs	Coordinated EIS reviews with EPO to have standard PRC language inserted.	ongoing	ongoing	ongoing
A.2.4	Maintain NPS Program files and NPS Library	Files updated; Library not updated	ongoing	ongoing	ongoing
A.3	Administer 319(h) Competitive Projects - Administer the selection and funding of FY-99 319(h) implementation projects and demonstration projects per the strategy, "provide federal dollars for demonstration projects from the public and private sectors relating to nonpoint source control," from the CWB Strategic Plan.				
A.3.1	Solicit implementation project proposals			Revised Grant application package; advertised in local papers & OEQC Bulletin, held informational meetings on four islands.	
A.3.2	Evaluate and select project proposals along with EPA. Notify selected applicants to prepare final proposals.				Staff review of proposals; coordinated final submittal of proposals by 8/31.
A.3.3	Evaluate, rank and select project final proposals with interagency committee and EPA.	FY98 grantees selected.			Interagency review panel meets for selection on 9/15.
A.3.4 & A.3.5	Assist grant recipients to prepare project Workplans and scope of work in consideration of quality assurance and quality control requirements.	Staff assist FY98 grantees in writing contracts for their projects.	ongoing	final FY98 contract complete.	

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A.3.6	Prepare supplemental agreements to existing agreements as needed.			Waiakea Stream BMPs (FY-96) contact modified for 1 year extension to complete project activities. Heeia Wetlands Restoration (FY-96) contract modified on July 20, 1999 for an extension to complete project activities. Manawainui Watershed, Molokai (FY-96) contract modification on June 28, 1999.	Pelekane Bay Watershed-Phase 2, Mauna Kea (FY-97) contract modified to revise operation and maintenance fencing activities. Central Maui (FY-98) contract modified on August 27, 1999 to reflect revised timetable and add more specific information to the Scope of Services. Watershed Stabilization Hamakua SWCD (FY-95) contract modification.
A.4	Clerical Assistance - Provide clerical assistance for PRC Program activities.	Ongoing, PO processing, correspondence, budget, staff support			
В.	PLANNING - Conduct planning activities to control polluted runoff through public/private partnerships (Objective 5, CWB Strategic Plan).				
B.1	PRC Program Development - Foster partnerships with other governmental, business, and nonprofit agencies involved in nonpoint source pollution control (Objective 5, Strategy 1; CWB Strategic Plan).				
B.1.1	Continue to implement the existing MOU between DOH, NRCS, HACD, and EPA: Re-evaluate the MOU for its benefits, effectiveness, and value; make needed changes.	Ongoing			

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B.1.2	Expand partnerships or if necessary, Memorandum of Understandings, with other groups to coordinate efforts to address pollution per the Hawaii Coastal Nonpoint Pollution Control Plan for Implementation. (assisted by the FY-98 319(h) funded CZM PLV).	Ongoing			
B.1.3	Meet PRC Program staffing needs as follows: a. Secure personnel if positions are vacant program. b. Request Planner and EHS positions be made permanent.	Full staffing-no vacancies		DOH Administration request accepted by 1999 Legislature; included conversion of Planner to permanent, budgeted the EHS, and created a unbudgeted GMS.	Person in EHS resigned, replacement hired. Assisted Enforcement section in its interviews
B.2	Group Involvement - Participate and support the activities of the following groups involved in addressing NPS pollution (Obj.5, Strategy 1):				
	a. Hawaii Technical Committee on NPS b. Interagency Water Quality Action Program (IAWQAP) Training Committee	10/21 HTCNPS, present UWA None held this year.	1/28 Present NPS projects, CNPCP update.	4/29 Update on call for proposals, HCNPCP.	9/22-24 Annual HACD Conf.; NPS meeting on Oahu. NPS/ UWA.
	c. Polluted Runoff Forum (PROF), (for HCNPCP Implementation Plan development)	10/7 Update Prof		4/13 Update PROF	
	d. Environmental Outreach Network		2/10 update member agencies on upcoming outreach events.		
	e. Hawaii Environmental Educators Association	PRC did not participate in HEEA in FY99.			

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B.2 (con't)	f. Ala Wai Canal Watershed Improvement Project - 1) Ala Wai Technical Advisory Committee 2) Ala Wai Community Advisory Committee 3) Ala Wai/Dept. of Education Volunteer Monitoring g. USDA-NRCS State Technical Committee 1) Environmental Quality Incentives Program (EQIP) 2) Wildlife Habitat Incentives Program (WHIP) 3) USDA Public Education/Outreach h. Unified Watershed Assessment Committee I. County DPW Grading/Erosion Control Committees for Maui and Honolulu j. DOH Source Water Assessment Protection Program (New)State Erosion Control Committee (New) Hawaii Water Env. Association	10/01/98- 12/31/98 10/17 participated in all day retreat with watershed members 10/9 Give presentation to teachers in DOE WQ Training Prog.; 10/16 & 11/17 meet DOE on contract specs. 11/4 Quarterly NRCS EQIP meeting; updated on UWA and new 319 Proj. PRC Did not attend for lack of staff. PRC did not attend for lack of staff. Met with UWA team to brief them on final submittal on Hawaii's UWA plan. Attended county public info meetings on final Maui Co. revision. 10/28 attended SWAP meeting Staff help set up meeting, NPS BMPs discussed.	2/18 attend monthly meeting 1/14 meet DOE on contract issues. 1/28 Update on NPS Prog. 2/11 meet with State UWA to discuss funding allocation that EPA approved. 3/8 attended SWAP meeting. 3/3-5 Staff attended HWEA Conf. Setup education display.	5/20 attend monthly meeting 5/4 Update on proposals, UWA, and NPS plan development. 4/16 meet with SWAP Team to discuss coordination with UWA. 6/18 attend meeting, discuss direction.	8/13 quarterly meeting. 9/9 & 9/17 Discuss final contact parameters with DOE. DOH/CZM/EPA reviewed UWA proposals-comments and revisions to follow. 8/3 Attend State meeting, search for ways to better estimate soil loss. 9/20 Attend meeting. Br. Chief attends quarterly meeting.

Task	TASK DESCRIPTION	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
No.		10/01/98- 12/31/98	01/01/99-03/31/99	04/01/99-06/30/99	07/01/99-09/30/99
B.3	Priority Watersheds - Promote new watershed management initiatives to improve water quality in priority watersheds (Objective 6, CWB Strategic Plan). The following 4 activities support Strategy 1 of Objective 6 from the CWB Strategic Plan, "Look for opportunities to work with local community-based nonprofit organizations interested in pursuing watershed management and support their efforts." a. Support public outreach activities identified by the Ala Wai Canal Watershed Improvement Project. b. Support DOH efforts to develop a statewide monitoring strategy and volunteer monitoring curriculum for all surface waters including the Ala Wai Canal. c. Support the community based watershed effort on Windward Oahu, (Kailua Bay Advisory Council for Waimanalo, Kailua, Kaneohe Bays) d. Coordinate with NRCS the Clean Water Action Plan's Unified Watershed initiatives as the opportunity arises.	a. Continue working with representatives of the AWCW subwatersheds on finalizing their MOAs for their projects. Assist at and Photograph events on "Make a Difference Day" in which over 500 volunteers carried out projects within the AWCW.; gave NPS lecture at Kaimuki H.S. to 150 students. b. Lecture DOE teachers about NPS as part of their WQ training; meet with DOE on MOA specs for training teachers on WQ and monitoring. c. Attend KBAC meetings to become familiar with their watershed issues. d. 10/15 Hawaii's UWA Plan was submitted for federal approval, this plan was finalized with the cooperation of NRCS and CZM. e. None this quarter.	a. Continue working with representatives of the AWCW subwatersheds on finalizing their remaining MOAs for their projects; attend AWCW meetings. Staff attend Mamala Bay monitoring meeting on 2/25. b. Continue to meet with DOE on contract details. c. Attend KBAC meeting. d. Conduct UWA Team meeting with NRCS and CZM along with partner agencies (2/11). Conference call with MLSWCD on UWA (3/17). e. Met with DLNR to brief their Koolau Mountain Partnership about the UWA, and opportunities for the Koolaupoko Watershed. Met with The Nature Conservancy and USFWS as they organize a East Molokai Watershed Partnership (Jan. & March). Staff site visit with partnership 1/22.	a. Staff work with few remaining subwatershed projects to finalize their MOAs; Attend AWCW Comm. Mtg.; 4/15-16 assist on two day watershed learning event with grades 3-5 Ala Wai Elem. students (250 students); The EHS, IPA, Planner, and AWCW Coordinator carried out site visits/inspections on each subwatershed projects in May. b. ongoing c. Attended KBAC meeting, explained 319 grant opportunities. d. DOH guidance on UWA was developed, finalized (rev. By CZM, NRCS, EPA) and sent to Tier One-Priority Watersheds. Met Kauai, Pelekane, Koolaupoko UWA contacts to affirm guidance. Met with CDWB to better coordinate SWAP and UWA. e. Met with East Molokai Watershed Partnership to work out MOU details. Attend Pupukea/Ke Iki Watershed Awareness tour, presented grant information to group.	a. Reviewed final AWCW Coordinator's Report to DOH. Attend DLNR hearing on Dredging of Ala Wai Canal (9/30). Track progress of subwatershed projects; follow-up with remaining MOAs to be completed by grantees. b. Intensive meetings with DOE to finalize Scope of Work for WQ Training/Monitoring contract. c. Attend KBAC meetings, give input of expectation on first 10K allotment to KBAC for UWA work. Attend Koolau Mountain Partnership tour and MOU signing ceremony; meet with DLNR to explore integrating Koolau Mountain Partnership goals to UWA Koolaupoko Watershed goals. d. Draft UWA workplans submitted by contractors to DOH. UWA Team reviewed workplan proposals, made recommendations to modify. e. DOH attend planning sessions for EPA sponsored "Watershed Training Conference." Meet with E. Molokai Watershed Partners. Attended Legislative meeting that WOSWCD organized to notify elected official of their needs.

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B.4	Legislative and Departmental Activities - Conduct legislative and departmental (DOH) activities related to the PRC Program.				
B.4.1	Prepare legislative briefs and testimony and coordinating testimony from others to support pertinent legislation.	10/14 finalize budget request for inclusion in Administration package.	Chief and PPC attend Legislative briefing; CWB Chief reviewed many WQ bills, provided testimony.	Call key legislators to ask for support on budget request to convert Planner to Permanent, make EHS budgeted, establish GMS. Passed	
B.4.2	Review and comment on planning documents regarding PRC pollution concerns.	PRC coordinated with EPO to develop standard NPS language to be used in EIS/EA reviews.	For all four quarters, 22 documents were reviewed that required NPS comments based on the HCNPCP.	Ongoing	Ongoing
B.5	PRC State Management Plan Revisions - Incorporate FY97 and FY98 Section 319(h) Guidances, CWA 319(h) rules, federal Clean Water Action Plan, and Hawaii's Coastal Nonpoint Pollution Control Program (CNPCP) to revise the 1990 NPS Management Plan				

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	The following actions implement Strategies 1,3,5 of Objective 5 in the CWB Strategic Plan.				
B.5.1	[Many of these actions are being coordinated by the CZM PLV which is funded from the FY-98 workplan.]				
	1. Hawaii Coastal Nonpoint Pollution Control Program- Coordinate activities with other public agencies so that Hawaii will develop an implementation plan for the CNPCP (Section 6217). a. Continue Coordinating the Polluted Runoff Forum (PROF) Advisory Committee b. Develop CNPCP strategy that incorporates recommendations from the federal Environmental Assessment of Hawaii's Plan, the federal Findings and Conditions and from Strategies that fit the State's needs. 1. Develop a preliminary draft monitoring plan for the CNPCP. 2. Develop a draft of the enforcement authority of CH.342D, HRS and CH 11-54, HAR. c. Develop and Coordinate Internal DOH Strategy d. Work with Legislature and Attorney General to develop needed rules or changes to rules (Legislative Packet). Plan and provide public review period.	1. 10/15 & 11/18 Conference call with CZM & EPA about progress on implementation of HCNPCP and HIPPRC. Propose a timeline of activities to accomplish.	Brief Dep.Dir on HCNPCP and HIPPRC. CZM drafts preliminary "Bad Actor" Law & draft monitoring strategy. CZM suffer personnel transitions with CZM CZARA coordinator leaving, CZM HCNPCP coordinator replaces position, and replacement for 319 sponsored position is recruited in next quarter. PROF meets and is updated on next steps to HIPPRC.	1. CZM and DOH send representatives to National NPS meeting in St. Louis (4/20-22). S. Miller, formerly of NRDC, is selected as new coordinator on integration of HCNPCP and HIPPRC. 2. Draft HIPPRC is complete (6/30).	1. Advertisement is published 7/5 announcing public meeting and availability of the HIPPRC. Public meetings held 7/12- 7/22 at Kaunakakai, Lanai City, Honolulu, Wailuku, Lihue, Hilo, and Kona. 500 books were distributed. 2. First draft of HIPPRC is extensively modified per input from the public and EPA Region IX. Original two Chapters is expanded to six and designed to better integrate EPA's 9-Key Elements with addressing CZARA Finding and Conditions. Second draft is completed by 10/13/99. Advertisement announcing public input meetings and press release is prepared. Twenty-one public meetings are held on each major island with nearly 250 people in attendance. Many comments were received and will be addressed. The final version is nearly complete. All FY99 activities related to legislative package, attorney general review, development of enforcement authority will be addressed in final version of the HIPPRC.

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B.5.1 (con't)	2. Incorporate CNPCP, CWA 319(h), FY-97 and FY-98 319(h) EPA guidances, 1998 Federal Clean Water Action Plan, local watershed plans, state wetlands initiatives, and State Source Water Assessment and Protection Plan into a revised Comprehensive State Management Plan for Polluted Runoff Control (draft due 4/30/99; final is 6/30/99). a. Review or participate all relevant plans and initiatives. b. Organize an interagency review committee to draft revisions. c. Finalize draft State PRC Management	ongoing	ongoing	ongoing	ongoing
B.5.2	Conduct outreach activities to inform other state and county agencies of upcoming PRC control guidelines.			PROF meets and is updated on next steps to HIPPRC. State and county agencies are included. CZM's MACZMAG Committee made up inpart of county agencies is briefed about HIPPRC development.	Special meetings are made with each county DPW and planning office to brief them on revised version of HIPPRC.
B.5.3	Actively solicit PRC projects that demonstrate best management practices or implement policies that achieve the goals, guidelines, management measures that meet the State Management Plan and CNPCP (6217) Plan.			In FY99 319 RFP, the ability to implement or address a component of the HCNPCP (1996) is identified as a core justification for a project proposal to be selected. This is emphasized in public meetings.	
B.6	State Revolving Fund - Meet with Wastewater Branch, include SRF funds as option for FY-99 recruitment of 319(h) projects and assist in project selection.		2/24 meet with WWB staff to review new proposals to be included on NPS Priority List for SRF Funding.	Modify PRC's Proposal Package for 319 funding to include SRF information and SRF funding opportunities. PPC attended Western Region SRF Training in San Francisco.	One proposal for SRF funding was recruited via the 319 call for proposals. Information was given to WWB.

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В.7	Monitoring & TMDLs - Conduct needed monitoring activities				
B.7.1	Per CWB Strategic Plan Objective 5, Strategy 4, which states "Encourage and support programs for environmental education", we will conduct the following activity: Promote and be a technical resource to volunteer water quality monitoring programs in high priority watersheds, such as working with DOE to promote School-based Volunteer Monitoring curriculum for statewide use.	DOE begins introduction phase of Teacher Training on WQ. Lecture DOE teachers about NPS as part of their WQ training; meet with DOE on MOA specs for training teachers on WQ and monitoring.			Intensive meetings with DOE to finalize Scope of Work for WQ Training/Monitoring contract. Attend TMDL meetings to look for coordination with UWA implementation
C.	IMPLEMENTATION - Conduct activities to provide federal dollars for demonstration and implementation projects from the public and private sectors relating to polluted runoff control (CWB Strategic Plan Objective 5, Strategy 3).				
C.1	Implementing NPS Control Projects - Track and oversee the following implemented NPS control projects: (all project oversight will be assisted by the EPA-IPA whom is funded by FY 96 & 97 workplans).				
	a. Integration of Aquaculture with Taro (FY-94)	Final project completed and submitted by Dec. 31, 1998			

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C.1 (Con't)	b. Erosion Control Training, Maui County (FY-95)	Maui County Council approved bill to revise grading ordinance, meeting with consultants and DoH to plan and schedule workshops.			
	c. Watershed Stabilization, Hamakua SWCD (FY-95)	328 acres mowed during period, lost equipment operator–must hire new one	No mowing was done, no new employee hired.	Hired new employee. 422 acres mowed. Contract modification on June 25, 1999	Made good progress on mowing, utilized bulldozer to push down tall sugar cane stalks, and catching up on past missed work activities.
	d. Hawaii Farm*A*Syst/Home*A*Syst (FY- 96)	Obtained national Farm*A*Syst/Home*A*Syst materials and secured permission to modify them for local use, presented materials at HACD meeting, reviewed materials and identified changes for local use, and sought technical advice.	Developed overall outline of program structure, developed drafts of the first four program worksheets, continued work in the pilot project sites to develop local contacts, and identified source material which will serve as the basis for the development of each worksheet.	Completed drafts of worksheets addressing management of activities relative to: farm, land, nutrient, pest, water, and livestock practices that contribute to polluted runoff, also developed materials addressing disposal of farm chemicals, and completed revisions of school lessons for teachers.	
	e. Honolua-Mokuleia Bay Watershed Impl. (FY-96)	Completed plastic mulch catchment fence at Field 53, completed drainage improvements to Field 45 road.	90% of project completed with silt basin, 20% completed with gulch drainage improvements.		
	f. Erosion and Sediment Control Workshops, (FY-96)				

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C.1 (Con't)	g. Heeia Wetlands Restoration (FY-96)	2000 school children participated in trail building and mangrove removal, 3000 community workers volunteered for stream restoration efforts, and 500 native milo and 14 kou trees planted along riparian zone.	Continued public outreach forums, stream cleanups, monitoring/water quality testing continued at monitoring sites along stream.	Engaged in stream clearing/cleanups, conducted water quality analysis of raw sampling data, and held several public education forums. Contract modified for extension on June 25, 1999 to complete project activities.	
	h. Manawainui Watershed, Molokai (FY-96)	Reassessed areas for revegetation, planted 3000 stargrass cuttings, scheduled plantings of trees, grasses and shrubs, completed Hawaiian curriculum on soil and water, installed temporary rain gauges, installed three weather monitoring stations, and analyzed water samples taken at stream outlet.		Contract modification on June 28, 1999.	
	I. Waiakea Stream BMPs, Hawaii Co. (FY-96)	no progress	no progress	contact modified to extend contract for 1 year. Permitting process was the cause of delays	no progress
	j. Mo'momi Watershed Project, Molokai (FY-97)			contract finalized and contractor was sent a notice to proceed with project activities on May 7, 1999	quarterly report was due on July 31, 1999 but not received by PRC. PRC contacted the contractor to request submission of the document.

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C.1 (Con't)	k. Waihewahewa Restoration Area, Molokai (FY-97)			No cost budget and match revision was submitted, however no quarterly report submitted due April 15, 1999.	Quarterly report due July 15, 1999 but not submitted. PRC contacted the contractor to request submission of the quarterly report.
	1. Kalihi CRISP, Hawaii's Thousand Friends (FY-97)	developed curriculum and conducted first youth education program segment. Published Kalihi Valley newsletter and translated into Samoan. Conducted first stream clean up and storm drain stenciling.	revised curriculum began second round of youth education program segment. Published second Kalihi Valley newsletter and translated first newsletter into Ilocano.	Students attended class sessions to observe and document stream conditions. Mapping projects were completed from the stream analysis and survey and presented at a community Fair held on May 15, 1999	Kalihi Valley Home Fair was held and a booth with materials about the stream was set up to disseminate project items. Third newsletter was produced.
	m. Livestock Waste Management Technology and P2 Education Program, HACD (FY-97)	Project not started	Project not started	contract finalized and contractor was sent a notice to proceed with project activities on May 7, 1999	preliminary field assessment/survey of livestock farms completed. Draft of Animal Residual Management Planning Manual completed. Steering committee reviewed tasks, objectives, and milestones to date.
	n. Pelekane Bay Watershed-Phase 2, Mauna Kea (FY97)	Met with project cooperators to schedule installation of fencing and waterlines for paddocks, and intensive grazing project.	Comprehensive resource management plan completed and distributed. Two day public outreach events with various high schools to learn about Pelekane Bay watershed.	Planning process for fencing continued.	Contract modified to revise operation and maintenance fencing activities and recommendations to purchase and install liner for reservoir based on recommendation from field experts.

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C.1 (Con't)	o. Hawaii Water Reclamation Education, HWEA (FY97)	completed rough draft video on water reclamation in Hawaii. Received committee comments on the video from various experts	completed first and second edit of video. Committee critically evaluated the video after edits. Initiated work on pamphlet to accompany video presentation.	finalized production of video and pamphlet. Duplicated 100 copies of video and 2400 copes of the pamphlet and distributed to governmental agencies including DOH. Presented video to various intermediate schools and made the video available to local community access television stations statewide.	continued to present video to different public groups, continued to broadcast on local community access television stations and received approval to present the project at the national Water Reuse Conference in February 2000.
	p. East and West Kaui (FY-98)	Project not started	Project not started	DOH developing contract	Project's official commencement date was September 23, 1999. Supervisory committees extensively discussed site plan, design options and materials needed. After review of proposed plans for East site #1, State Commission on Water Resource Management has required a Stream Channel Alteration Permit.
	q. From the Land to the Sea (FY-98)	Project not started	Project not started	DOH developing contract	Project's official commencement date was July 19, 1999. August 23, 1999 contract granted one year no cost extension. Contractor began research into BMPs for Ala Wai watershed and related CIP projects. Began revisions to 4th grade program to better include sedimentation and erosion. Began research on groundcovers for demonstration plantings at field site.

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C.1 (Con't)	r. Central Maui (FY-98) s. HACD Discretionary Fund 1999	Project not started Project not started	PRCP Coordinator & staff did site visit. Discussed possible revisions to project proposal. DOH developing contract DOH developing contract	Project's official commencement date was June 1, 1999. Project's official commencement date was May 9, 1999.	July 12, 1999, contractor submitted revised timetable. August 27, 1999 contract modified to reflect revised timetable and add more specific information to the Scope of Services. Completed new diversions in field 263 and began work on waterways. Preliminary work on settling basins for fields 273 and 274. Draft of Animal Waste Management Planning Manual completed. State formally notified District boards they need to determine the number of livestock farms with more than 25 animal units.
C.2	Solicit Projects - Solicit quality projects that will implement policies/initiatives, practices, measures, and outreach that meet the State Coastal Nonpoint Source Pollution Control Plan.				

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D.	PUBLIC PARTICIPATION - Conduct public outreach activities to change the knowledge level, values, attitudes, skills, and behavior of people and encourage the application of management measures to address NPS pollution. This meets CWB Strategic Plan Objective 5, Strategy 4, "encourage and support programs for environmental education." (Activities below, listed according to priority, first highest.)				
D.1	Public Inquiries - Respond to public inquiries	Ongoing	Ongoing	Ongoing	Ongoing
D.2	Publicize Projects - Publicize project findings and accomplishments.	No progress	No progress	No progress	No progress
D.3	New Media - Develop new media for and distribute to the following target audiences: a. Legislators b. Educators c. Students, by level d. Internal DOH Personnel e. Business & Trade Association Workshops f. Neighborhood Boards g. Ala Wai Polluters h. Other Agencies including Counties I. New Homeowners	Script and Perform NPS Presentation for Moanalua Gardens Foundation's Children's Science TV show televised on Hawaii PBS. Featured Apoha the Fish and a Staff member (12/8). It was re-broadcasted several times during the school year. New information sheet on cesspools and septic systems is paid for by PRC under WWB guidance. It is distributed to all known residences that are on such systems.	Along with DLNR and Hawaii Audobon, Sponsor Live Play Tour and the video production and tour of the environmental education shows "Under the Clear Blue Sea" and "Voices of the Rainforest". Sponsored 10K for past two years. Plays written by popular, local playwright & childrens author, Lisa Matsumoto. Tour went through the entire spring and throughout the state. Increase use of press releases to stimulate articles about UWA, 319 grant opportunities, and public input meetings on the HIPPRC.	Conduct Statewide informational meetings in Honolulu, Waimea (Hawaii Co.), Lihue, and Wailuku to explain the CWA Section 319 grant opportunities.	

Task No.	TASK DESCRIPTION	QUARTER 1 10/01/98- 12/31/98	QUARTER 2 01/01/99-03/31/99	QUARTER 3 04/01/99-06/30/99	QUARTER 4 07/01/99-09/30/99
D.4	Existing Media - Distribute or use the following existing media more efficiently: a. NPS Newsletter b. News conferences/News releases c. Water quality contest d. Displays/fair booths e. Speaking Events f. Slideshows g. Storm Drain Stenciling h. Videos i. Response letters to public inquiries j. Apoha costume k. Coloring books l. Photographs m. PSAs for TV & Radio n. Promotional gifts/volunteer awards: t-shirts, pencils, fanny packs, stickers, waterbottles, magnets, badges o. Brochures p. Surveys q. Posters r. Field Days	PRC Display board at Kinau Hale all of October '98. Haleiwa Fishermans Festival PRC Booth and Apoha visit October 3-4. Present PRC lecture to Heald Business College Students (10/8). Present PRC to 60 teachers at DOE training (10/9) Participate in "Make A Difference Day." focused on Ala Wai Projects (10/24). Assist Honolulu Mortgage Company on their "Make a Difference Day" Project which entailed several visits of Apoha to preschools (10/26-27). Ka'ahi Elementary School visit, entire third grade (11/12). Kaimuki H.S. NPS presentation (12/10) to several science classes (150 students). Apoha appears in City & County Christmas Parade (thousands reached) on 12/12. Participate at KCRISP's Kalihi Valley Environmental Fair (12/14). Private Muslim School Visit with Apoha (20 students) on 12/28.	Review 319 project outreach material development when appropriate:HWEA Water Reuse Video, KCRISP Education materials. Give \$17K contract to YES to carry out statewide PRC education and youth environmental projects. EHS is judge at DOE District Science Fair Competition (3/9-10). Present HCNPCP and future NPS issues at West Oahu SWCD (3/16). PPC Presented Hawaii's Unique Watersheds and NPS Issues during a concurrent session at the national meeting for the Association of American Geographers (3/24). Also organized speakers for the concurrent session.	Assist at Island Business Magazine's, "Awards in the Environment," recognition luncheon (4/9). Set-up display and take Apoha to KCAA Pre-School Group Fair (4/17). Buy advertisement space to place Environmental Education tip sheet in local statewide paper for Earth Day (4/22). Staff man booth at Keiki Fest, pass out information to parents ands kids(4/24). Participate at KCRISP's Kalihi Fair (5/15). Participate at Waiau Elementary Environmental Awareness Day (5/28). Do erosion/sediment demo. PRC Presentation at UH (6/16). Aikahi School visit (6/17). Molokai Fishpond Water Quality Training (6/18-19).	PRC Display Booth at Kinau Hale all of July. Conducted seven public input meetings on each major island to present the first draft of the HIPPRC. Meet with Cook Island Water pollution monitoring and education staff in Rarotonga; sent Hawaii examples of environmental education materials after the fact. PRC and CZM give joint 3 hour training on HCNPCP and watershed tools to American Samoa CZM staff during their one week training being held at University of Hawaii (9/21). Tens of hours dedicated to planning session for both the upcoming EPA sponsored watershed training conference. The following materials were distributed by request or at fairs and school visits. The estimated amount is in (). * Coloring books (3554) * HHHP (890) * NPS Pamphlets (870) * NPS Posters (235) * Pencils (1,085) * Videos (20) * Shirts (15) * Boating BMP (50) * Cesspool/Septic BMP Brochure/Survey (5,000)
D.5	Provide Advice and support to other information/education activities (ie. DOE, UH-CES).		Review of City and County of Honolulu Earth Day publications		American Samoan Training on Coastal Zone Management and Nonpoint source pollution (NPS). Meeting Rarotonga Staff about NPS education.

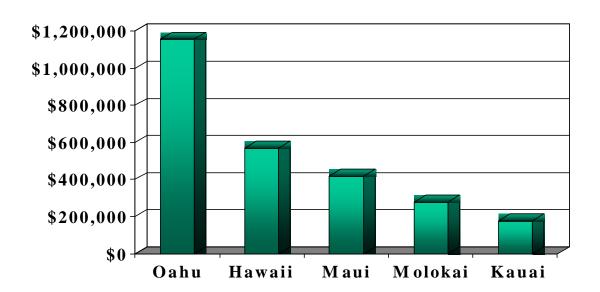
Task No.	TASK DESCRIPTION	QUARTER 1 10/01/98- 12/31/98	QUARTER 2 01/01/99-03/31/99	QUARTER 3 04/01/99-06/30/99	QUARTER 4 07/01/99-09/30/99
D.6	Act as a NPS information clearinghouse.				
Е.	TRAINING & Required EPA Workshops - Provide for PRC staff to obtain needed training.				
E.1	Provide for the current PRC Program and CWB staff to obtain needed training and to attend national workshops required by EPA. (This includes meetings at EPA Regional and Headquarter offices, and national CZARA meetings.)	IPA attended Western Region Pollution Prevention Network Conference.	PPC & Planner take Powerpoint training. EHS takes excel training.	PPC attends National NPS Meeting in St Louis (4/20-22) Important Program Upgrade information was ascertained. PPC attends training on SRF for NPS (6/23-25).	PL and PPC take Intermediate Excel PL and EHS take Into. To Access.
F.	IMPLEMENTATION PROJECTS - Projects are selected to receive FY-99 CWA 319(h) implementation grant funding from the DOH. The projects are to implement watershed restoration, implementation of management measures consistent with the State's PRC Management Plan, the Hawaii Coastal Nonpoint Source Control Plan, or conduct volunteer monitoring.				
F.1	FY-99 projects have yet to be solicited. [For FY-99, \$ 440,000 will be available for projects and a match of 100% will be required from the selected projects].				

APPENDIX B:

Clean Water Act Section 319(h) 1990-1999 Projects

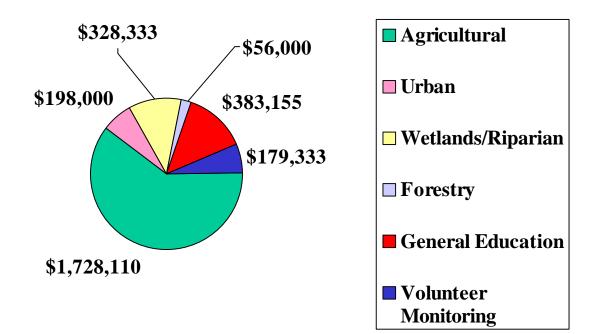
Distribution of Section 319(h) Grants by Island (1990-1999)

- Oahu (\$1,156,545)
- Hawaii (\$ 568,377)
- Maui (\$ 418,740)
- Molokai (\$ 277,000)
- Kauai (\$ 177,498)



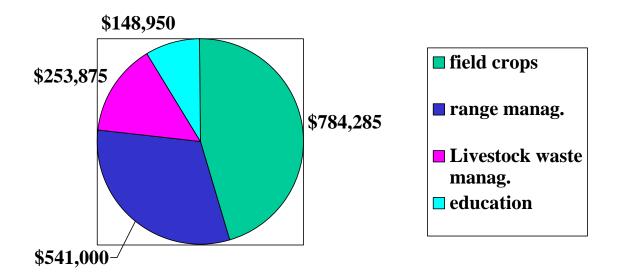
Distribution of Section 319(h) Grants According to Land Use (1990-1999)

- Agriculture (\$1,728,110)
- Wetlands/Riparian areas (\$ 328,333)
- Urban (\$ 198,000)
- Forestry (\$ 56,000)
- General education (\$ 383,155)
- Volunteer monitoring (\$ 179,333)



Distribution of 319 funds for Agricultural Land Use Activities (1990-1999)

- Agriculture -- \$1,728,110
 - Field crops (\$784,285)
 - Range management (\$541,000)
 - Livestock manag. & Aquaculture (\$253,875)
 - Education (\$148,950)



Distribution of Section 319(h) Grants by Contractor (1990-1999)

